

LISTING OF CLAIMS

The current listing of claims supersedes all previous listings of claims.

What is claimed is:

1. (Currently Amended) A process for preparation ~~process~~ of aromatic ketones by a Friedel-Crafts acylation reaction in an ionic liquid, between a Friedel-Crafts aromatic substrate and a Friedel-Crafts acylating agent, ~~characterized in that wherein~~ the ionic liquid has the formula (I) and it is used in the absence of any other catalyst and/or solvent; wherein [Q]⁺ is selected from the group consisting of a substituted-imidazolium cation, a substituted-pyridinium cation, an ammonium cation, and a phosphonium cation.



2. (Original) The process according to claim 1, wherein [Q]⁺ is a substituted-imidazolium cation.

3. (Original) The process according to claim 2, wherein the ionic liquid is selected from the group consisting of 1-ethyl-3-methylimidazolium trifluoromethanesulfonate, 1,3-diethylimidazolium trifluoromethanesulfonate, and 1,3-dimethylimidazolium trifluoromethanesulfonate.

4. (Currently Amended) The process according to claim 3, wherein the ionic liquid is ~~the~~ 1-ethyl-3-methylimidazolium trifluoromethanesulfonate.

5. (Original) The process according to claim 1, wherein the Friedel-Crafts acylating agent is selected from the group consisting of a carboxylic acid halide, a carboxylic acid anhydride, a carboxylic acid ester and a carboxylic acid.

6. (Original) The process according to claim 5, wherein the Friedel-Crafts acylating agent is a carboxylic acid anhydride.

7. (Currently Amended) The process according to claim 5 ~~any of the claims 5-6~~, wherein the acylating agent is selected from the group consisting of acetic acid anhydride, propionic acid anhydride, butanoic acid anhydride, isobutanoic acid

anhydride, pentanoic acid anhydride, benzoic acid anhydride, chloroacetic acid anhydride, acetyl chloride, propanoyl chloride, butanoyl chloride, benzoyl chloride, and chloroacetyl chloride.

8. (Currently Amended) The process according to claim 1, wherein the Friedel-Crafts aromatic substrate is selected from the group consisting of aromatic benzenoid compounds, aromatic benzenoid-fused compounds, and heteroaromatic compounds resulting from substitution of CH groups by N atoms in said aromatic benzenoid compounds and aromatic benzenoid-fused compounds ~~the previous ones; all these said aromatic and heteroaromatic~~ substrates being optionally substituted by substituents which are stable under Friedel-Crafts reaction conditions, or which have been suitably protected to be stable.

9. (Original) The process according to claim 8, wherein the Friedel-Crafts aromatic substrate is selected from the group consisting of benzene, toluene and anisole.

10. (Original) The process according to claim 9, wherein the Friedel-Crafts aromatic substrate is anisole.

11. (Currently Amended) The process according to claim 1, wherein the Friedel-Crafts acylating agent is attached to the Friedel-Crafts aromatic substrate, ~~being the carbonyl group of the Friedel-Crafts acylating agent~~ being separated of from the Friedel-Crafts aromatic substrate by a aliphatic chain from 2 to 4 carbon atoms, so as effecting an intramolecular ring closure ~~and is done~~ yielding a (5-7)-membered ring.

12. (Currently Amended) The process according to any of the claims 1-6 and 8-9 ~~claims 1-14~~, wherein the reaction is carried out at a temperature between room temperature and 150 °C.

13. (Currently Amended) The process according to ~~claim 12~~ any of the claims 1-6 and 8-9, wherein the reaction is carried out at a temperature between 70 °C and 100 °C.

14. (New) The process according to claim 6, wherein the acylating agent is selected from the group consisting of acetic acid anhydride, propionic acid anhydride, butanoic acid anhydride, isobutanoic acid anhydride, pentanoic acid anhydride,

benzoic acid anhydride, chloroacetic acid anhydride, acetyl chloride, propanoyl chloride, butanoyl chloride, benzoyl chloride, and chloroacetyl chloride.

15. (New) The process according to claim 1, wherein the ionic liquid is used in the absence of any other catalyst and solvent.

16. (New) The process according to claim 14, wherein the reaction is carried out at a temperature between room temperature and 150 °C.